

WHAT IS CLAIMED IS:

1. A thrombus suction catheter comprising a tube having a first lumen passing through from a proximal end to a distal end of the catheter,

an opening at the distal end of the catheter,

an insertion port for a guidewire provided in the catheter at a position apart from the distal end of the catheter,

a second lumen provided for the guidewire and extending from the insertion port to the opening at the distal end of the catheter,

a third lumen provided for a reinforcing wire and extending from the proximal end of the catheter to a position beyond said insertion port and to a position apart from the distal end of the catheter,

wherein the opening at the distal end of the catheter comprises a cut surface angled with respect to a longitudinal axis of the catheter, the cut surface terminating in a necked-down tip at a distal side of the cut surface, at least a portion of the cut surface on a proximal side of the cut surface being concave in the angled direction, and the necked-down tip including the second lumen provided for the guidewire.

2. The thrombus suction catheter according to claim 1, wherein the cut surface on a proximal side of the cut surface includes a first cut surface extending from a proximal side of

the necked-down tip and angled in the proximal direction of the catheter, a ledge surface which is substantially parallel to the longitudinal axis of the catheter and extends from the first cut surface in the proximal direction and a second concave cut surface extending from the ledge surface and angled in the proximal direction of the catheter.

3. The thrombus suction catheter according to claim 1, wherein the the necked-down tip is eccentric to the longitudinal axis of the catheter.

4. The thrombus suction catheter according to claim 2, wherein the the necked-down tip is eccentric to the longitudinal axis of the catheter.

5. The thrombus suction catheter according to claim 1, wherein the opening at the distal end of the catheter provides a pressure loss at a start of suction of 90% or less.

6. The thrombus suction catheter according to claim 2, wherein the opening at the distal end of the catheter provides a pressure loss at a start of suction of 90% or less.

7. The thrombus suction catheter according to claim 1, further comprising a reinforcing wire in said third lumen.

8. The thrombus suction catheter according to claim 2,
further comprising a reinforcing wire in said third lumen.

9. The thrombus suction catheter according to claim 3,
further comprising a reinforcing wire in said third lumen.

10. The thrombus suction catheter according to claim 4,
further comprising a reinforcing wire in said third lumen.

11. The thrombus suction catheter according to claim 1,
wherein the insertion port for the guide wire is provided at a
position 25 to 35 cm from the distal end of the opening at the
distal end of the catheter.

12. The thrombus suction catheter according to claim 2,
wherein the insertion port for the guide wire is provided at a
position 25 to 35 cm from the distal end of the opening at the
distal end of the catheter.

13. The thrombus suction catheter according to claim 3,
wherein the insertion port for the guide wire is provided at a
position 25 to 35 cm from the distal end of the opening at the
distal end of the catheter.

14. The thrombus suction catheter according to claim 4,
wherein the insertion port for the guide wire is provided at a

position 25 to 35 cm from the distal end of the opening at the distal end of the catheter.

15. The thrombus suction catheter according to claim 1,
5 wherein a marker for identifying a position of the catheter is provided in a vicinity of the distal end opening.

16. The thrombus suction catheter according to claim 2,
10 wherein a marker for identifying a position of the catheter is provided in a vicinity of the distal end opening.

17. A thrombus suction system comprising a suction pump and the thrombus suction catheter of claim 1, wherein the suction pump provides a variable and continuous pressure at the proximal end of
15 the thrombus suction catheter.

18. A thrombus suction system comprising a suction pump and the thrombus suction catheter of claim 2, wherein the suction pump provides a variable and continuous pressure at the proximal end of
20 the thrombus suction catheter.

19. The thrombus suction system according to claim 17,
wherein the suction pump is capable of producing a suction pressure of 650 mmHg or higher at the proximal end of the thrombus suction
25 catheter.

20. The thrombus suction system according to claim 18, wherein the suction pump is capable of producing a suction pressure of 650 mmHg or higher at the proximal end of the thrombus suction catheter.